Homeland Defense

ARDEC – Picatinny, New Jersey 07806-5000

US Army Research, Development & Engineering Command

Target Behavioral Response Laboratory (TBRL)

The bottom line when using any scaleable-effects weapon is that we want the person or persons being targeted to stop doing what they are doing and do what we want them to do, in other words, change their behavior. There are scores of scenarios and numerous terms such as delay, deny, distract, dissuade. used to describe these changes in behavior; but to really assess those changes, three things are necessary: first, experiments must be conducted and objective data must be collected to support any judgments being made regarding the effects of any non-lethal device or system; second, experiments must take into account human response since behavior such as this involves uniquely human characteristic that cannot be fully determined with animals; third, changes in behavior must be stated in simple, measurable terms such as: stop, go away, or stay away.

The Target Behavioral Response Laboratory (TBRL) has been created at ARDEC to obtain data on responses that can be elicited through a wide range of existing and new energy sources. A grant has been provided to the New Jersey Medical School in collaboration with the New Jersey Health Care System of the Veterans Administration towards the creation of the *Stress and Motivated Behavior Institute (SMBI)* whose main purpose is the study of target suppression. The TBRL looks at effects across the entire engagement spectrum from non-lethal to near lethal, from tactical scenarios to Homeland Defense (HLD)/Security (HLS) applications.

The TBRL is designed to address the program in the following manner. First, the degree that various types of energy inputs have the potential to produce targeted suppression will be determined. Second, direct laboratory experimentation will be conducted to collect data verifying that reliable, robust effects can be elicited. Third, experiments at the ARDEC Laboratory, which simulate operational situations and weapon systems will be conducted to demonstrate that useful effects can be achieved. And last, users under realistic conditions at ARDEC will perform demonstrations with prototype systems developed either by ARDEC or other sources. These intend to verify the overall effectiveness of the systems and to ensure that the initial user “desirements” have been translated into proper system requirements. TBRL will provide effects data to developers, participate in development of requirements, and support effectiveness, modeling, safety and training issues.

There are currently two ongoing programs being conducted by ARDEC, one for blunt impact munitions and one for light and sound with a flash-bang grenade. Also, five pilot programs looking at the possible effects of various forms of light, sound, microfog, ultrasonics, etc., singly and in combination, will be initiated in FY03. It is hoped that once information is obtained to demonstrate certain effects are possible, requirements and weapon proposals will follow. All the components of this methodology are available to assist with programs in varying stages of development for tactical applications and homeland defense/security systems.

For more information, contact the Center for Homeland Defense Technologies and Security Readiness via mail to: Commander, U.S. Army ARDEC, ATTN: AMSTA-AR-QAC-S, Building 65S, Picatinny Arsenal, NJ 07806-5000;
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